

AUTOMATIC PROTECTION RELAY

Introduction

Automatic relay protection is a device used in power systems to automatically detect and respond abnormal conditions such as overcurrent, overvoltage, ground faults, etc. Alarms to protect electrical systems and equipment from potential hazards and ensure safe operation of electrical systems.

Blue Jay's power distribution safety-related products include Arc flash protection relays, Motor protection relays, WSK series, DH series switchgear temperature and humidity control equipment, etc. Products have miniature intelligence, high integration, high sensitivity and high precision, and has higher anti-electromagnetic interference performance and higher IP protection level. It is suitable for various monitoring sites to ensure electricity safety.

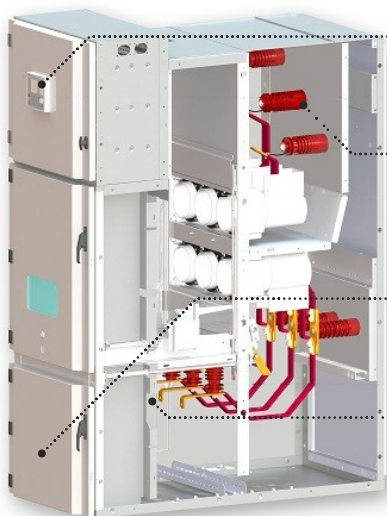


Main Features

- Automatic control, high reliability.
- Ability to record and analyze failure events.
- Modular design, convenient and quick installation and maintenance.
- Quick response: detect and cut off the faulty circuit in time to effectively prevent accidents.
- High-precision measurement and judgment ability, accurately judge the type and location of the fault.
- Versatility: such as overload protection, short circuit protection, ground fault protection, etc.
- 24 hours real-time monitoring, RS485 remote control.

Application

- Industrial automation system.
- Large municipal engineering project.
- UPS system, battery system.
- Real-time monitoring and alarm of power system.
- Substations, power plants, transmission lines, distribution lines.
- Protects motors from overloads, short circuits and motor failures.



Integrated CB control panel

- CB switch status indicate
- CB switching operation
- Integrate PMD and other functions

Thermal Monitoring (SCM-W3000)

- Surface touch or infrared sensor
- Cable terminations
- CB contact fingers
- Busbar joints

Partial Discharge Monitoring (SCM-PD3000)

- TV and ultrasonic sensor
- PD detection
- PD localization

Arc Flash Protective (AFR)

- High precision fiber probe
- Arc detection
- Arc localization
- Fault protection

ELR SERIES EARTH LEAKEGE RELAY

FEEDER PROTECTION AND CONTROL

Introduction

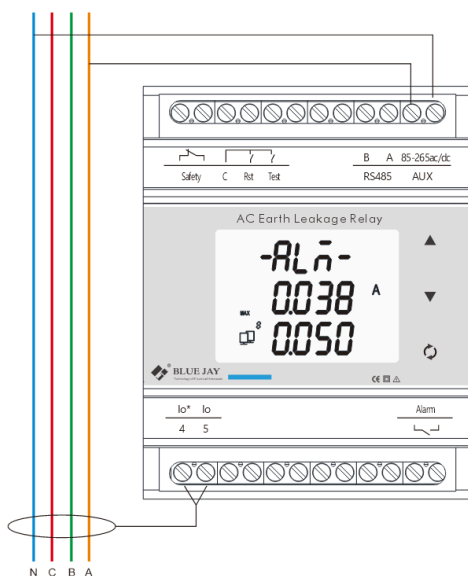
The ELR Earth Leakage Relay enhances electrical safety by continuously monitoring leakage current with advanced residual current transformer. When leakage current exceeds the preset threshold, it instantly triggers an alarm for early fault detection.

Featuring an alarm hold function, it retains the alarm signal until reset, simplifying fault diagnosis. Ideal for preventing equipment damage, reducing downtime, and ensuring personnel safety, the ELR Series provides reliable and efficient protection for your power system.

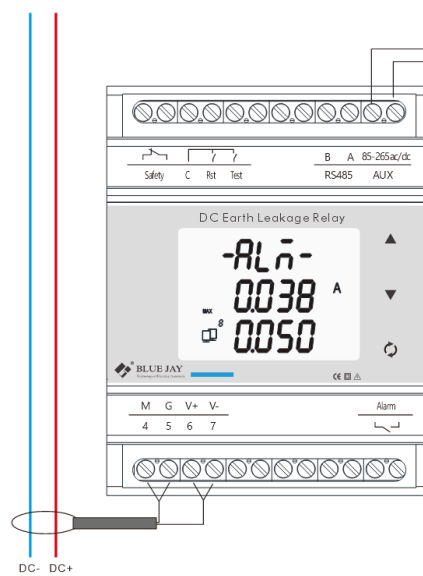
Ordering Information

Model	Description
ELR-4MA	<ul style="list-style-type: none"> Use for AC measurement Compatible with Residual current transformer Adjustable alarm threshold 6mA-60A
ELR-4MD	<ul style="list-style-type: none"> Use for DC measurement Compatible with Hall effect current transformer Adjustable alarm threshold 1-30mA/5-100mA

Wiring Method



ELR-4MA



ELR-4MD

Main Features

- Digital measured value display via LCD display;
- Current transformer connection monitoring;
- Internal/external test/reset button;
- One separate alarm output relays;
- Adjustable trip levels and time delay;
- Standard 35mm din rail mounting;
- 1-30mA / 5-100mA / 6mA-60A adjustable response values;

Application

- Smart grid system;
- Medium and low voltage systems;
- Commercial and residential buildings;
- Utilities and power distribution systems;
- Motor control panels and switchboards;
- DC system leakage current measurement;
- Industrial control system (PLC, SCADA, DCS).

Technical Characteristics

Parameter	ELR-4MA	ELR-4MD
Auxiliary power supply	85-265Vac/dc	
Power consumption	≤4VA	
Frequency	50/60Hz, Accuracy ±0.01Hz	
Leakage current alarm threshold	6mA-60A, can be set	1-30mA / 5-100mA, can be set
Time delay	50ms-10sec, can set as need.	
I/O capacity		
Digital input	2* DI for reset/ test, NC dry contact, Ri<500Ω turns on, Ri>100kΩ turns off	
Digital output	1* relay NO for safety; 1* relay NC for alarm; Load capacity: 5A@250VAC	
Others		
Communication	RS-485 MODBUS-RTU	
Display	LCD with backlit	
Withstand voltage	2.5KV 1min	
Insulation	Input, output, power supply to shell >5MΩ	
Storage environment	-40~70℃	
Working environment	-25~55℃ Altitude ≤2500m,0~95%RH, non-condensing, non-corrosive gas	